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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/625,416	07/23/2003	Robert M. Taylor	SEVRO38STWP-DIV	9170
37334	7590	12/13/2004	EXAMINER	
D'AMBROSIO & ASSOCIATES, P.L.L.C. 10260 WESTHEIMER SUITE 465 HOUSTON, TX 77042			SIEFKE, SAMUEL P	
			ART UNIT	PAPER NUMBER
			1743	

DATE MAILED: 12/13/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/625,416

Applicant(s)

TAYLOR ET AL.

Examiner

Samuel P Siefke

Art Unit

1743

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on Election/restriction 11/24/04.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-44 is/are pending in the application.
- 4a) Of the above claim(s) 12-44 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-11 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

## DETAILED ACTION

### *Election/Restrictions*

1. Restriction to one of the following inventions is required under 35 U.S.C. 121:
  - I. Claims **1-23**, drawn to a method of measuring chlorine content, classified in class 436, subclass 125.
  - II. Claims **24-27**, drawn to stable aqueous reagent solution, classified in class 436, subclass 100.
  - III. Claim **28**, drawn to a stable aqueous reagent solution, classified in class 436, subclass 8.
  - IV. Claims **29-35**, drawn to an apparatus and method for detecting the level of chlorine in a water sample, classified in class 422, subclass 61.
  - V. Claims **36-44**, drawn to an apparatus and method for detecting the level of chlorine in a water sample, classified in class 422, subclass 62.

The inventions are distinct, each from the other because of the following reasons:

2. Inventions **I** and **II** and **III** are related as process and apparatus for its practice.

The inventions are distinct if it can be shown that either: (1) the process as claimed can be practiced by another materially different apparatus or by hand, or (2) the apparatus as claimed can be used to practice another and materially different process. (MPEP § 806.05(e)). In this case the stable aqueous reagent solution can be used as a buffer.

3. Inventions **I** and **IV** are related as process of making and product made. The inventions are distinct if either or both of the following can be shown: (1) that the process as claimed can be used to make other and materially different product or (2)

that the product as claimed can be made by another and materially different process (MPEP § 806.05(f)). In the instant case group I, the method of measuring chlorine content, can be used by hand.

4. Inventions I and V are related as process of making and product made. The inventions are distinct if either or both of the following can be shown: (1) that the process as claimed can be used to make other and materially different product or (2) that the product as claimed can be made by another and materially different process (MPEP § 806.05(f)). In the instant case group I, the method of measuring chlorine content, can be used by hand.

5. Inventions II and III are unrelated. Inventions are unrelated if it can be shown that they are not disclosed as capable of use together and they have different modes of operation, different functions, or different effects (MPEP § 806.04, MPEP § 808.01). In the instant case the different inventions group II can be used to prevent stomach indigestion because of the use of sodium bicarbonate and group III can be used as a buffer solution for chemical reactions where a solution with sodium tetraborate decahydrate is needed. The inventions are uniquely different and distinct compositions.

6. Inventions IV and V are related as combination and subcombination. Inventions in this relationship are distinct if it can be shown that (1) the combination as claimed does not require the particulars of the subcombination as claimed for patentability, and (2) that the subcombination has utility by itself or in other combinations (MPEP § 806.05(c)). In the instant case, the combination as claimed does not require the particulars of the subcombination as claimed because the combination can be used in

an industrial setting for automation detection of chlorine content. The subcombination has separate utility such as chlorine detection in a floating device used in a swimming pool.

7. During a telephone conversation with Katherine D' Ambrosio on November 23, 2004 a provisional election was made with traverse to prosecute the invention of **group I, claims 1-23**. Affirmation of this election must be made by applicant in replying to this Office action. Claims 24-44 withdrawn from further consideration by the examiner, 37 CFR 1.142(b), as being drawn to a non-elected invention.

#### **EXAMINER'S AMENDMENT**

An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it **MUST** be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with Katherine D' Ambrosio on November 23, 2004.

The application has been amended as follows:

Claims 12-23 have been cancelled.

***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims **1-7, 10** and **11** are rejected under 35 U.S.C. 102(b) as being anticipated by Patent Abstract of Japan vol. 1996, no. 12, 26 December 1996 (08211042).

08211042 discloses a method of measuring chlorine content in aqueous solution without lowering the pH of a solution to the acidic range, which comprise the steps of:

- modifying a solution comprising chlorine and water to contain a proton donating compound and measuring the concentration of chlorine in a solution (abstract);
- the modifying step comprising mixing the solution with a proton donating compound (abstract);
- the proton donating compound is a non-nutritive reagent (abstract);
- the solution is modified electrochemically and the chlorine is measured electrochemically (abstract)
- the proton donating compound is a bicarbonate, specifically sodium bicarbonate (abstract);
- the pH of the aqueous solution comprises chlorine and sodium bicarbonate where the pH is about 8.8 (abstract, about 8.8 in a the alkaline);
- the chlorine form is selected from free forms OCL- or HOCL- (abstract).

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

13. Claims 8 and 9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Patent Abstract of Japan vol. 1996, no. 12, 26 December 1996 (08211042) in view of Girvan et al. (USPN 6,022,480).

08211042 discloses a method of measuring chlorine content in aqueous solution without lowering the pH of a solution to the acidic range, which comprise the steps of: modifying a solution comprising chlorine and water to contain a proton donating compound and measuring the concentration of chlorine in a solution, the modifying step comprising mixing the solution with a proton donating compound, and the proton donating compound is a bicarbonate or borate salt.

08211042 does not disclose any information regarding the use of sodium tetraborate decahydrate.

Girvan teaches a method for treating standing water system comprising: administering borate salts and calcium hypochlorite to more efficiently provide free chlorine to the system, and to stabilize the pH of the standing water. Sodium tetraborate decahydrate has long been known to be effective as an algaecide and a fungicide in standing water systems such as swimming pools, drinking water reservoirs, etc. Tetraborate improves the treatment of water systems in several ways: (col. 2, lines 1-16). It would have been obvious to one having ordinary skill in the art at the time the invention was made to use sodium tetraborate decahydrate as the particular borate salt proton donating compound because it stabilizes the pH of the water and increases the available chlorine to the water (col. 3, lines 41-56; col. 4, lines 10-16; col. 7, lines 54-67; claim 3).

### ***Conclusion***

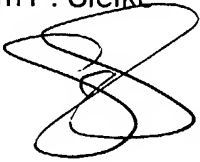
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Samuel P Siefke whose telephone number is 571-272-1262. The examiner can normally be reached on M-F 7:00am-5:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jill A. Warden can be reached on 571-272-1700. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.




Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Sam P. Siefke



December 6, 2004

  
Jill Warden  
Supervisory Patent Examiner  
Technology Center 1700